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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,130	03/04/2004	Jeong Dae Seo	K-0619	3916
34610	7590	12/28/2005	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			THOMPSON, CAMIE S	
			ART UNIT	PAPER NUMBER
			1774	
DATE MAILED: 12/28/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/792,130	SEO ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Camie S. Thompson	1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/22/05, 4/8/05</u> | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 1, 3, 5 and 9-10 are objected to because of the following informalities:

Delete the extraneous period after the term “dopant” in claim 1.

Delete the term “First” and insert the term “first” in claim 1

Delete the extraneous period after the phrase “formula 2” in claim 3.

Delete the extraneous period following the term “formulas” in claim 5.

Delete the extraneous period following the phrase “chemical formulas” in claim 9.

Delete the extraneous period following the phrase “chemical formulas” in claim 10.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

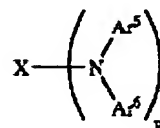
A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsuura et al., U.S. Pre Grant Publication 2005/0064233. In order to overcome this reference, applicant must submit a translation of the foreign priority documents.

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Matsuura discloses an organic electroluminescence device having a layer of an organic light emitting medium which comprises (A) an arylamine compound and at least (B) at least one compound selected from specific anthracene derivatives (see paragraph 0010 and paragraph



0100-0115). The reference reads on the instant claims when (A) is when

$p = 2$  and X is a residue group represented by anthracene. Additionally, the reference reads on the instant claims when (B) is an anthracene derivative such as  $A^3$ -An- $A^4$  wherein An represents a substituted or unsubstituted divalent anthracene residue and  $A^3$  and  $A^4$  each independently represent a substituted or unsubstituted aryl group having 6 to 40 carbon atoms wherein at least one of  $A^3$  and  $A^4$  represents a substituted or unsubstituted monovalent condensed aromatic ring group or a substituted or unsubstituted aryl group having 10 or more carbon atoms. It is disclosed in paragraph 0094 that the amount by weight component of (A) to the amount by weight by component (B) is in the range of 1:99 to 20:80 as per instant claim 2.

### ***Claim Rejections - 35 USC § 103***

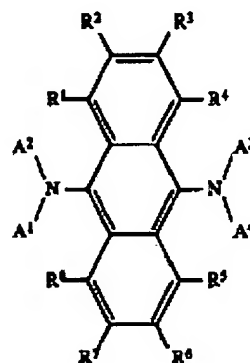
4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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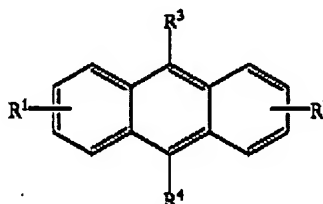
5. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Enokida et al., U.S. Patent Number 5,759,444 in view of Shi et al., U.S. Patent 6,465,115.

Enokida discloses a light emitting material used in an organic electroluminescence device



wherein the material is represented by the following formula

(see column 2, lines 10-36). The Enokida reference reads on the instant claims when A<sup>1</sup>-A<sup>4</sup> can be a substituted or unsubstituted aryl group having 6 to 16 carbon atoms and each of R<sup>1</sup> to R<sup>8</sup> is a hydrogen atom. Also, column 3, lines 60-64 of the Enokida reference discloses that the compounds of the above formula can be used in combination with other hole-transporting material, other electron transporting material or other dopant. The Enokida reference does not provide the specific other hole-transporting material, other electron transporting material or other dopant. Shi discloses a organic multilayer device comprising an anode and cathode, and including therebetween a hole transport layer and an electron transport layer wherein the device



has a hole transport material with the general formula

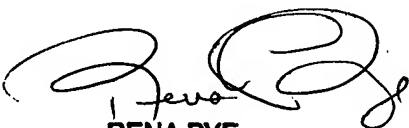
wherein R<sup>1</sup>-R<sup>2</sup> are hydrogen and R<sup>3</sup>-R<sup>4</sup> are each individually hydrogen or an aryl or substituted aryl (see column 3, lines 10-40). The anthryl derivatives of the Shi reference have an ionization

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potential larger than 5.0 eV (see column 6, lines 64-65). Therefore, it would have been obvious to one of ordinary skill in the art to use the anthryl derivative of the Shi reference as a hole transport material in combination with the compounds of the Enokida reference in order to have an EL device with enhanced performance.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Camie S. Thompson whose telephone number is (571) 272-1530. The examiner can normally be reached on Monday through Friday from 7:30 am to 4:00 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena L Dye, can be reached at (571) 272-3186. The fax phone number for the Group is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
RENA DYE  
SUPERVISORY PATENT EXAMINER  
A.U. 1774 12/28/05